TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION Effective Date: June 1, 2012
RC-333

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **January 2016**.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

Mechanical Lock Panel 2.0" (ML200) Over Structural Cement, manufactured by

Quality Metals
210 W. Peden
San Antonio, Texas 78204
Telephone: (210) 227-7276

will be accepted for use in areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The mechanical lock panels shall be 24 MSG minimum coated steel. The maximum panel width is 16 in. and rib height 2 inches. The panels are continuous over two or more spans. Endlaps to occur with panels overlapped 6 in. A bead of sealant may be used at panel ends and side joints. Side laps to be tightened and crimped with an electric crimping machine to a maximum 45 degree angle unless indicated in the individual panels in this item. The crimping process to include the upper portion of panel clips.

LIMITATIONS

Structural Cement-Fiber Unit (Substructure) — The substructure consists of minimum 5 in. thick composite structural cement-fiber units with foamed plastic core of a minimum 0.95 PCF density expanded polystyrene and 7/16 in OSB structural use panels on one face. All transverse butt joints are to occur over structural support. Unit will be designated as plank (tongue and groove) when used without truss tees. Unit will be designated as tile (rabbetted) when used with truss tees.

Design Wind Pressure: The design pressure uplift load resistance is 52.5 psf**.**

Roof Slope: The roofing panels may be installed on roofs with a roof slope as low as ½": 12.

INSTALLATION INSTRUCTIONS

General: The metal roofing panels shall be installed in accordance with the manufacturer's recommended installation instructions and this product evaluation.

- **Roof Deck Fasteners* (Panel Clips) —** Either of the following: **Fixed Clip** — One piece clip assembly fabricated from No. 22 MSG minimum steel, 3 in. wide. **Floating Clip** — is a two piece

assembly with a base fabricated from No. 16 MSG minimum steel, 1 in. wide, and a top fabricated from No. 22 MSG steel, 4 in. wide. The clip spacing 24 in. OC maximum.

- **Fasteners (Screws) —** Screws used to attach the panel clips to substructure to be 1/4 in. -14x1-1/4 in. Type A, hex washer head, without washer. Two screws per clip.

  Screws used at end lap (high system only) to be one of the following: 14x1 in. Type AB, Hex Washer Head self-tapping; 14x1 in. Hex Washer Head, self-drilling; 14x1 in. Type AB Phillips Stainless Steel, self-tapping. Five screws are required per panel in a 1, 3, 4, 4, 3 in. pattern.

  Fasteners used to attach Tectum deck to structural support to be minimum 6 in. long, No. 14 screw with 5/8 in. diameter head. Fasteners are spaced a maximum of 12 in. on center at each joist along butt end. When required, Pre-drill with a 3/16 in. bit for steel up to 1/8 in. thick or with a 7/32 in. bit for steel greater than 1/8 inch thick.

Note: The manufacturer's installation instructions shall be available on the job site during the installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.